perspectives

community

The PSRI Technical Guide

Cassie Barnhardt, Mary Antonaros, Matthew A. Holsapple, Molly C. Ott
& Eric L. Dey

excellence

ethics

Core Commitments:
Educating Students for Personal and Social Responsibility

An initiative of

AAC&U

*Association
of American
Colleges and
Universities*

integrity

The PSRI Technical Guide

*Cassie Barnhardt, Mary Antonaros, Matthew A. Holsapple,
Molly C. Ott, and Eric L. Dey, Ph.D.*

CONTENTS

ACKNOWLEDGEMENTS

INTRODUCTION

The *Personal and Social Responsibility Inventory (PSRI): An Institutional Climate Measure* is designed to survey students, faculty, student affairs professionals, and academic administrators regarding institutional support and opportunities for education for personal and social responsibility. The inventory asks respondents about their perceptions of the educational environment in relation to five broad areas of student development
1. Striving for excellence;
2. Cultivating personal and academic integrity;
3. Contributing to a larger community;
4. Taking seriously the perspective of others;
5. Developing competence in ethical and moral reasoning and action.

The PSRI consists of a student and a campus professional version. In each version, the inventory contains three types of items for each of the five dimensions of personal and social responsibility:
- *Attitudinal items* where respondents choose the degree to which they agree with a statement about the institution
- *Behavioral items* where respondents choose the degree to which they experience a particular phenomenon at the institution, and
- *An open-ended item* where respondents can provide specific examples of campus experiences that help students further develop a particular dimension of personal and social responsibility

The PSRI allows campuses to move beyond anecdotal information about students' and others' experiences with respect to education for personal and social responsibility. The PSRI can contribute to campus-based efforts to use data to:
- Understand how perceptions vary within and across groups
- Analyze assets and gaps in curricular and cocurricular offerings
- Confirm or challenge existing beliefs about the campus climate
- Make decisions about resources and future areas of work
- Enhance the educational experience of students.

Longitudinal use of the instrument would allow campuses to investigate gains in positive perceptions of campus climate and in opportunities for education for personal and social responsibility.

The *PSRI Technical Guide* is broken down into five sections. Section 1 provides users with a brief history of the development of the inventory to date. Section 2 focuses on the fall 2007 administration of the survey, the first large-scale use of the inventory. Section 3 provides information on the properties of the individual survey items, while section 4 provides information on the psychometric characteristics of the survey and the initial development of scales. Section 5 provides logistical recommendations to guide users in administering the inventory on campus. Along with reading this guide, users should review the inventory and the companion manual, *Interpreters' Guide for the Personal and Social Responsibility Inventory (PSRI): An Institutional Climate Measure*, prior to using the instrument.

SECTION I. DEVELOPMENT OF THE PSRI

Initial Survey Construction

As part of a larger AAC&U initiative focused on education for personal and social responsibility, the PSRI was first developed in 2006 by L. Lee Knefelkamp and Richard Hersh with research assistance from Lauren Ruff. The PSRI developers began the process by conducting an extensive review of the student development literature, psychological instruments, and measures of human characteristics and traits that were relevant to the domains of personal and social responsibility. In consultation with an ad-hoc group of national researchers in education and psychology, they then identified five dimensions of personal and social responsibility as important core capacities for students that were borne out by the research:

1. **Striving for excellence:** developing a strong work ethic and consciously doing one's very best in all aspects of college;
2. **Cultivating personal and academic integrity:** recognizing and acting on a sense of honor, ranging from honesty in relationships to principled engagement with a formal academic honor code;
3. **Contributing to a larger community:** recognizing and acting on one's responsibility to the educational community and the wider society, locally, nationally, and globally;
4. **Taking seriously the perspective of others:** recognizing and acting on the obligation to inform one's own judgment; engaging diverse and competing perspectives as a resource for learning, citizenship, and work;
5. **Developing competence in ethical and moral reasoning and action:** developing ethical and moral reasoning in ways that incorporate the other four responsibilities; acting on such reasoning in learning and in life.

Once the five dimensions were articulated, the PSRI developers identified ten key aspects of organizational culture—basic functions, procedures, mission, reward systems, and suborganizational structures—that well-designed climate measures seek to assess. These were: (1) mission and educational purpose; (2) institutional leadership and advocacy; (3) policies and procedures; (4) expectations for competency and growth; (5) campus activities and organizations; (6) scholarly activities; (7) curriculum and pedagogy; (8) campus-community involvement; (9) evaluation and assessment; and (10) reward systems.

To provide more comprehensive data on campus climate for education for personal and social responsibility, the PSRI developers planned for the instrument to survey four campus constituent groups—students, faculty, student affairs professionals, and academic administrators. Next they created a 5 x 10 matrix of dimensions and climate markers and generated a pool of sample items that were keyed to the areas represented in the matrix. They drew from this pool of items to develop a draft of a student version of the instrument, and they developed the three campus professional versions based on the student version. These draft versions went through multiple internal revisions before being sent to several external reviewers and survey research experts in the fields of student development and campus climate measurement.

In December 2006, AAC&U contracted with the late Eric L. Dey, then at the University of Michigan's (U-M) Center for the Study of Higher and Postsecondary Education, to coordinate

the continued refinement and first large-scale administration of the PSRI. Dr. Dey and his research team (hereafter known as the "U-M Team"): (a) piloted the draft version of the PSRI; (b) refined the inventory for use with twenty-three campuses in fall 2007 as part of AAC&U's Core Commitments initiative; (c) administered the PSRI at the twenty-three institutions; and (d) performed data analyses and produced related reports (see appendix A for a list of publications and presentations generated by the U-M Team to date).

Pilot Testing
In spring 2007, the U-M Team recruited three campuses as potential pilot sites for the PSRI. The pilot version of the instrument was subsequently tested at two campuses. The objective of the pilot was not only to test the instrument's empirical properties, but also to determine the best ways to approach the administrative tasks associated with collecting, compiling, and analyzing PSRI data.

The pilot PSRI consisted of four versions, one each for students, faculty, student affairs professionals, and academic administrators. Each version was comprised of attitudinal and behavioral response items, open-ended questions, and demographic and background questions. The attitudinal items prompted respondents to indicate their level of agreement with a statement along a six-point continuum (choosing from "Strongly Agree," "Agree," "Agree Somewhat," "Disagree Somewhat," "Disagree," and "Strongly Disagree"). The behavioral items prompted respondents to indicate how often they engaged in a particular activity along a three-point continuum (choosing from "Frequently," "Occasionally," and "Never").

The four versions of the pilot PSRI differed in terms of the length of the survey, with the student version consisting of 149 items, the faculty version consisting of 138 items, the student affairs professionals version consisting of 129 items, and the academic administrators version consisting of 136 items. While each version of the survey contained similar questions, the language differed slightly to reflect each group's role within the campus community.

All pilot data were collected electronically. There were two administrative approaches to collecting student data. In the first approach, the pilot campus provided contact information for a sample of students to the U-M Team. The students were then contacted via e-mail with a personalized message inviting them to complete an electronic survey. In the second approach, students using computers at campus computing centers were prompted to log on to an electronic survey link. On average, students completed the survey in thirty-three minutes.

Similarly, the pilot campuses used several approaches to collect data from faculty, student affairs professionals, and academic administrators. In some cases, a web-link was posted to a staff listserv with an introductory message from a division head that encouraged colleagues to respond; other groups of faculty, student affairs professionals, and academic administrators were sent individualized e-mail messages. The completion time for these groups was also approximately thirty minutes.

The pilot administration garnered a total of 1,321 responses. In summer 2007, the U-M Team processed and analyzed the data through basic factor analytic techniques and reliability testing to

screen for items that needed revision and for redundant items that could be eliminated. In addition, the U-M Team solicited and received feedback from AAC&U staff and from the twenty-three campuses involved in the Core Commitments initiative, which would be administering the instrument in fall 2007.

Based on the data analysis and feedback, the researchers produced a post-pilot version of the survey instrument that differed from the pilot version in three main ways.

- The post-pilot PSRI consisted of two versions rather than four—a s*tudent* version and a *campus professional* version. The pilot testing demonstrated that individualized item language for each of the three campus professional constituent groups (faculty, student affairs professionals, and academic administrators) was unnecessary.

- In the post-pilot PSRI, the researchers attitudinal item response options were collapsed from a six-point Likert scale to a four-point Likert scale. Analyses revealed that there was little differentiation between certain points on the six-point scale. The post-pilot attitudinal item responses consisted of: "Strongly Agree," "Agree Somewhat," "Disagree Somewhat," and "Strongly Disagree."

- The post-pilot PSRI included a response option, "No Basis for Judgment," for all of the multiple-choice survey items. This response option allowed researchers to distinguish between instances where respondents may have simply skipped an item and instances when respondents had no basis by which to answer a question.

The post-pilot student version consisted of 153 items, and the post-pilot campus professional version consisted of 144 items. The difference between the student and professional versions was due to additional items related to background and demographic characteristics in the student version.

SECTION II. FALL 2007 ADMINISTRATION

The fall 2007 data collection process was developed by the U-M Team for the twenty-three campuses participating in AAC&U's Core Commitments initiative. When campuses applied to join the initiative, they agreed to administer the PSRI if they were chosen. The goal in using the PSRI was to strengthen the institutions' existing efforts to educate students for personal and social responsibility by providing them with information about the overall campus climate for these goals and data about different groups' experiences with educational opportunities related to personal and social responsibility.

Although the U-M Team provided individualized attention to the twenty-three campuses during the fall 2007 survey administration, the team followed general guidelines to provide uniformity and consistency throughout the data collection process.

Each campus identified a primary contact person for the U-M Team, often an institutional research (IR) staff member. This contact person worked with the U-M Team to generate a list of potential respondents and oversee campus-level tasks such as coordinating and completing the local Institutional Review Board/Human Subjects process; generating e-mail contact information for survey participants; and answering questions when survey participants had questions about the study. In instances where the contact person was not affiliated with IR, the IR office usually became involved to assist with the task of identifying participants for the study.

Each campus contact person was assigned a liaison from the U-M Team to assist with all survey administration plans. The campus contact person and liaison worked to determine the best dates for survey administration at his or her institution. Generally, campuses waited to administer the PSRI until after the first two weeks of classes, and they scheduled to avoid any formal campus breaks (holidays, fall break, etc.) and especially busy times for students and faculty (midterms, study days, homecoming, etc.).

After the survey administration dates and respondent groups were determined, U-M Team members customized the survey form to align with campus norms surrounding data collection. For example, campuses could choose the survey's background colors, and whether it included the AAC&U logo or their own campus logo. This option allowed each campus to brand the survey within the context and culture of the institution. Additionally, campuses were given the option to add questions (usually two to four items) to the standard PSRI form. This allowed campuses to ask about specific programs or practices that were relevant to fostering a supportive campus climate for education for personal and social responsibility.

Sample Construction
Once the survey forms were prepared, the campus contacts and the liaisons identified samples of respondents. In some cases the preparation of the sample groups involved the campus contacts and the liaisons establishing unique identifiers for the potential respondents. These unique identifiers were used to indicate, for example, whether students were involved with a particular campus program or initiative (e.g., first-year seminar, living-learning community) that might

influence their perceptions of the campus climate related to education for personal and social responsibility.

Since the purpose of the PSRI survey was to initiate a campuswide conversation about education for personal and social responsibility, the U-M Team recommended that the campuses survey all faculty, academic administrators, and student affairs professionals who were associated with undergraduate education. Many of the campuses did reach out to all campus professionals to participate in the PSRI administration, and so in several instances the sampling frame for campus professionals included the entire population. Some campuses also chose to include graduate and professional faculty and staff in the survey administration; such respondents were excluded from comparative data analyses.

The most challenging part of constructing a sampling frame for each campus was appropriately classifying individuals into respondent groups, and it was critical that the groups not overlap with one another. The U-M Team provided definitions to help the campuses identify potential respondents (see table 1). These definitions were intended to help campuses that needed to survey *samples* of different respondent groups, to ensure they had enough individuals from each group to contact to take the survey. The definitions were especially useful to help classify campus professionals, as these respondents completed the same version of the PSRI and only self-identified as faculty, student affairs professionals, or academic administrators at the point of taking the inventory. Campuses were encouraged to employ sampling strategies that would ensure the sample reflected the current population of groups whenever possible.

TABLE 1. Definitions of PSRI respondent groups

Students
Any degree seeking undergraduate enrolled in a course for academic credit during the semester/term in which the PSRI is administered. This sample will include part-time and full-time status students, residential and nonresidential students. Students must be at least eighteen years of age.

Student Affairs Professionals
Any employee of a campus unit (department/office) who is responsible for providing direct student services, but who is not responsible for delivering course instruction or conducting research. Student employees should be excluded from this sample. Many of the staff will likely work within units that report to the vice president of student affairs/dean of students (or the equivalent institutional officer). The units from which Student Affairs Professionals will likely be drawn include (but are not limited to):
- Student advising/counseling
- Student activities/leadership
- Multicultural program offices
- Student center of union staff
- Career services
- Judicial affairs
- Athletics

- Financial aid
- Residence life or housing program
- International offices
- Study abroad program offices
- Campus safety and security or police
- Student health centers
- Orientation
- Admissions
- Academic support or disabilities services

Academic Administrators

Any employee of a campus unit (department/office) who is responsible for providing administrative and programmatic support, but who is not responsible for delivering course instruction or conducting research activities. Many of the staff will likely work within the units that report to the provost/dean of the faculty (or the equivalent institutional officer). Units responsible for business functions or auxiliary services of the institution (finance and budget, physical plant, dining or food service, auditing, campus planning, general counsel, human resources, government relations) should be excluded from this sample. The units from which Academic Administrators will likely be drawn include (but are not limited to):
- Librarians
- Computer or instructional technology
- Provost office staff
- President/chancellor staff
- Academic deans office staff
- Academic departments administrative staff
- Development and donor relations
- Alumni affairs

Faculty Members

Any full-time or part-time faculty member who has responsibility for delivering direct instruction to undergraduate students. Instructional staff members that do not have faculty status should also be included (adjuncts, lecturers, etc.). Postdoctoral researchers, graduate student teaching assistants, and faculty teaching in graduate or professional schools without undergraduate teaching responsibilities should be excluded. The sample should be representative of the distribution of full-time/part-time faculty at the institution.

Campus Characteristics

The twenty-three campuses that administered the PSRI in fall 2007 were not selected with the goal of being representative of all of higher education. These campuses represented a distinct sample in that they had already made intentional and significant commitments to educating students for personal and social responsibility. The set of campuses included twelve public institutions (two of which were military academies) and eleven private institutions. Two campuses were community colleges and the remaining campuses were four-year institutions. Roughly one-half of the campuses enrolled fewer than five thousand students, and five institutions enrolled more than twenty thousand students (see table 2).

Table 2. Core Commitments Leadership Consortium Campuses by Size

Campus Enrollment	Frequency	Percent
1,000 - 4,999	11	47.8%
5,000 - 9,999	4	17.4%
10,000 - 19,999	3	13.0%
20,000 and above	5	21.7%
Total	23	100%

Data Gathering Techniques

As previously mentioned, the U-M Team provided individual campuses with a set of options to customize the PSRI survey experience for their institution. These were choices that would be additive to the experience, but not detract from a consistent research methodology.

The U-M Team coordinated the logistics of administering the PSRI with representatives from each of the participating institutions. As noted earlier, twenty-two of the twenty-three institutions used an online system for the survey administration. The U-M Team used commercially developed software designed for e-mail survey administration, and the system was tested on each campus to ensure that local spam filters would not override the survey messages. E-mail messages were sent to the students' and professionals' campus-based e-mail addresses. In cases where the campus did not possess a uniform campus e-mail system for students, the e-mail was sent to the e-mail address on record. After opening the e-mail message, respondents who chose to complete the survey were prompted to click on an individualized hyperlink that logged them into the survey and provided access to the questions. Each e-mail also included a link to opt out of the survey administration process; in doing so, respondents forfeited their opportunity to participate and were not replaced in the sample.

Institution-Specific Administration

The U-M Team prepared a standard format for recruitment and follow-up e-mail messages (see appendix B). Using this format, campuses developed their own subject lines and designated whether the initial message and reminders would be sponsored by a local campus leader (a dean,

provost, president, student leader, etc.), or come from a representative of the U-M Team on the campus leader's behalf.

Additionally, each campus determined whether they would offer any incentives for participating in the survey, and whether these incentives were available to all respondents, only students, or if different incentives would be offered to students and professionals. These incentives ranged from food and beverage coupons to entry into a lottery for a larger prize (e.g., tickets to athletic events, book store vouchers). Some institutions used both methods. One institution also offered to host a party for members of the student class that had the highest response rate. Campuses also chose the particular time during the academic term when respondents would be asked to complete the survey, and the length of time that the survey would be open.

Strategies for Lessening the Impact of Missing Data

The PSRI consists of five main sections corresponding to five dimensions of personal and social responsibility. The U-M Team randomized the order of the survey sections so that issues of missing data due to noncompletion would be spread across all five dimensions. This methodology proved successful as there were no significant differences in the nonresponse patterns across the five dimensions.

Human Subjects Information

The U-M Team coordinated the human subjects research approval process per University of Michigan's established guidelines.

Federal guidelines outline general expectations for the use of human subjects in research, and these guidelines can also vary by institution. Recognizing this, the University of Michigan's Institutional Review Board (IRB) required that each of the participating institutions comply with their own campus process for protecting human subjects. As a result, U-M Team members worked with each campus contact person to sort out the necessary human subjects review process. Before the U-M Team pursued any campus data collection, the campus contact had to provide documentation of compliance with local IRB guidelines, and this was usually done through an approval or exemption letter from the local campus IRB.

Informed Consent

The opening section of the survey addressed informed consent. Respondents read about the purpose of the survey and the parameters for involvement, and then had the opportunity to agree to continue with the survey. If a respondent agreed to continue, the survey advanced to the next item. If a respondent did not agree to continue, the survey closed. Respondents who did not provide informed consent were still eligible for incentives provided by the campuses. Overall, only twenty students chose not to consent to the survey, while all the participating campus professionals gave their consent.

 Specifically, the informed consent section addressed:
- Why the research was being done
- What the researchers wanted to accomplish
- What duration of time involved in taking the survey

- The lack of risk associated with taking the survey
- The benefits of participation vis-à-vis improving campus climate
- Confidentiality of participant records
- The fact that participation was voluntary, and that a participant had the right to exit the survey at any time
- Whom to contact if questions or problems arose

Strategies for Appropriate Contact with Potential Respondents

Previous research has shown that academic sponsorship of surveys tends to boost survey response rates (Fox, Crask, and Kim 1988). The team was fortunate to have the support of senior-level administrators at every participating institution, and their encouragement of campus community members to participate was critical during the data collection process. Presidents, provosts, and department chairs were instrumental in making public declarations about the value of personal and social responsibility as educational goals and in urging community members to respond. These declarations included e-mail and listserv messages, endorsements in campus newsletters and on the campus website, and announcements at campus meetings and events. Even with senior-level support in promoting survey participation, the U-M Team understood the necessity of being respectful and noninvasive when approaching potential participants. The team developed a uniform protocol to ensure appropriate contact with potential respondents. The team standardized the communication process based on the Dillman Total Design Method, beginning with an e-mail invitation and followed by up to three subsequent reminder e-mail messages to non-responders (Dillman 1978, 2000). The strategy emphasizes personalized communication to generate higher levels of participation.

Follow Up with Nonrespondents

Sound research protocol requires the use of individualized communication (or the perception of individualized communication) when following up with non-responders. The U-M Team sent individualized follow up e-mails to nonresponders, and they avoided sending reminders at times when the messages could be easily overlooked, such as Friday evenings or weekends.

Respondent Characteristics

The total sample for the fall 2007 administration was 32,775 and consisted of 23,950 students and 8,825 campus professionals. Campus-specific samples ranged from 181 to 3,313 for students and 76 to 1,337 for campus professionals, with averages of 1,041 and 384, respectively. Demographic data for the sample is provided in table 3.

TABLE 3. Demographic Data for Professional and Student Respondents, Fall 2007 Administration

	Professionals	*Students*					
	All	First-Year	Sophomore	Junior	Senior	*Class Year Not Reported*	Student Total
Gender							
Male	3972	1212	1183	1339	1671	228	5633
Female	4435	1990	2151	2530	3212	318	10201
Gender Not Reported	418	1365	1484	1701	1862	1740	8116
Race/Ethnicity							
White	7009	2509	2555	2816	3642	427	11949
African American	436	206	206	188	258	31	889
American Indian / Alaskan Native	35	13	11	13	9	0	46
Asian American / Asian	332	190	186	255	295	32	958
Native Hawaiian / Pacific Islander	18	5	14	18	22	3	62
Mexican American/Chicano/ Puerto Rican/Other Latino	327	135	184	300	360	11	990
Multiracial	35	51	47	61	60	4	223
Race Not Reported	633	1458	1615	1919	2099	1742	8833
Total	*8825*	*4567*	*4818*	*5570*	*6745*	*2250*	*23950*

Response Rates

There was significant variation in response rates across the institutions in the fall 2007 administration. All but one of the institutions used an online survey administration system and email recruitment for students. At these twenty-two institutions, 158,332 students were recruited, of which 23,478 submitted responses, for an overall response rate of 14.8 percent. Individual campus student response rates across the twenty-two institutions varied from 4.1 percent to 92.2 percent. In keeping with campus practice, one institution used a pencil-and-paper administration rather than an online survey administration; response rate data from that institution was unavailable.

The twenty-three institutions also recruited 24,243 campus professionals, of which 8,825 submitted responses, for an overall campus professional response rate of 36.4 percent. Individual campus professional response rates varied from 19.3 percent to 80.7 percent. All of the institutions used an online survey administration and e-mail recruitment for campus professionals.

Sample Weighting

To account for nonresponse error and to provide a sample that mirrored the overall sampled population at the twenty-two campuses for which response rate data was available, the U-M Team calculated probability weights and applied them to the student responses. After the initial survey administration, the U-M Team calculated campus-specific weights for each respondent based on three factors: gender, race, and class year—factors which prior research suggests can affect a student's likelihood of response (Dey 1997) and which institutions often view as important criteria.

To construct these weights, the U-M Team calculated response rates for eight student subgroups at each institution: men/women, white students/non-white students, and first-year students, sophomores, juniors, and seniors. These campus-level subgroup response rates were then compared with the campus population proportions, allowing the U-M Team to determine the representative gap between their sample data and the actual population data for each campus. The team then developed a weighted value for each subgroup by comparing the known campus population with the value of the sample population on each dimension of interest. This process yielded a weight which represented the number of like students (in institution attended, gender, race, and class year) in the population represented by each member of the sample. Institution-wide demographic data were not readily available for the campus professionals, so no weights were calculated for this group. See section 3 of this guide for specific information regarding the application of these weights to the full data set.

SECTION III. PROPERTIES OF SURVEY ITEMS

Code Book

The U-M Team created a code book of variable names for all quantitative survey items from the fall 2007 version of the PSRI, along with response value labels. The code book also included the mean and standard deviation for each pseudo-continuous variable. See table 4 for examples.

TABLE 4. Sample items from the Fall 2007 PSRI Code Book				
Variable Name	*Survey Item Text*	*Variable Labels*	*Mean*	*SD*
EXCE01	Helping students develop a strong work ethic is a major focus of this campus	0=No basis for judgment 1=Strongly agree 2=Agree somewhat 3=Disagree somewhat 4=Strongly disagree	1.79	0.76
ACIN01	Helping students develop a strong sense of personal and academic integrity is a major focus of this institution	0=No basis for judgment 1=Strongly agree 2=Agree somewhat 3=Disagree somewhat 4=Strongly disagree	1.60	0.68
COMM01	The importance of contributing to a larger community is a major focus of this campus	0=No basis for judgment 1=Strongly agree 2=Agree somewhat 3=Disagree somewhat 4=Strongly disagree	1.75	0.74
PERS01	Helping students recognize the importance of taking seriously the perspectives of others is a major focus of this campus	0=No basis for judgment 1=Strongly agree 2=Agree somewhat 3=Disagree somewhat 4=Strongly disagree	1.84	0.73
ETHC01	Helping students develop their own ethical and moral reasoning is a major focus of this campus	0=No basis for judgment 1=Strongly agree 2=Agree somewhat 3=Disagree somewhat 4=Strongly disagree	1.91	0.77

Applying Weights

Section 2 described how U-M Team members constructed the weights for the PSRI fall 2007 data set. The specific weighting variables are listed in table 5. The "year_wgt" variable is a proportional weight based on students' class year distribution on each campus; the "gend_wgt" variable is a proportional weight based on the distribution of males and females on each campus; and the race_wgt" variable is a proportional weight based on the distribution of white and non-white students on each campus. The "bias_wgt" variable accounts for all three of these student characteristics in the proportional weight – class year, gender, and race.

TABLE 5. Weighting Variables Utilized with the PSRI (fall 2007)

Weighting variable	Description
year_wgt	Students only, weighting by class year
gend_wgt	Students only, weighting by male/female
race_wgt	Students only, weighting by white/non-white
bias_wgt	Students only, weighting by class year, male/female, and white/non-white

Although the U-M Team generated four weighting variables, they used the "bias_wgt" variable in analyzing student responses since all three student characteristics were conceptually relevant to the analyses. Specifically, the "bias_wgt" variable was applied to each of the analyses that provided the content for the reports and monographs published by AAC&U on the 2007 data set (see www.aacu.org/core_commitments/publications.cfm).

Item Response Options

Quantitative Item Response Options

As mentioned earlier, two types of quantitative survey items are included in the PSRI for each of the five dimensions. With the attitudinal items, respondents choose the degree to which they agree with a statement about the institution (response options on a four-point ordinal scale are "Strongly Agree," "Agree Somewhat," "Disagree Somewhat," and "Strongly Disagree"). With the behavioral items, respondents choose the degree to which they experience a particular phenomenon at the institution (response options on a three-point ordinal scale are "Frequently," "Occasionally," and "Never"). For both types of quantitative items, an additional response option is provided for "No Basis for Judgment."

The PSRI was administered using commercially developed software, and the software assigned the following numerical values to the response options: 1 for "Strongly Agree" to 4 for "Strongly Disagree" and 1 for "Frequently" to 3 for "Never" (see table 7 for all original response values). The numerical assignment of values to response options matters less if frequency tables or cross-tabulation tables are the only techniques used to analyze the raw data. Interpretations of

descriptive summary statistics, factor analyses, or multivariate analyses, however, do depend on the numerical assignment of values to the response options.

When reading research results, most people assume that a higher mean or a positive regression coefficient indicates stronger agreement or higher frequency of a behavior. With the PSRI, this interpretation would not be accurate, since "Strongly Agree" is assigned a value of "1" and "Strongly Disagree" is assigned a value of 4 (and, correspondingly, "Frequently" is assigned a value of 1 and "Never" is assigned a value of 3).

To simplify regression and multivariate analyses for the campuses involved in the 2007 administration of the inventory, the U-M Team re-coded the responses for quantitative items in the PSRI to reverse the original value assignment. This resulted in lower numbers assigned to a lower frequency or to lower levels of agreement, and higher numbers assigned to higher frequency or higher levels of agreement. Table 6 provides the reverse-coded scheme alongside the original coding for the variables derived from the fall 2007 administration.

TABLE 6. Recommended Reverse Coding for Multivariate Analyses

Response Option Label	Original Response Value	Reverse-Coded Response Value
Attitudinal Items		
Strongly Agree	1	4
Somewhat Agree	2	3
Somewhat Disagree	3	2
Strongly Disagree	4	1
No Basis for Judgment*	0	0
Behavioral Items		
Frequently	1	3
Occasionally	2	2
Never	3	1
No Basis for Judgment*	0	0

* *Note* : Analysts will want to drop this variable from their analyses or deliberately make a decision about how to treat it in order to avoid misinterpretation of results.

No Basis for Judgment Responses

As noted, a "No Basis for Judgment" option is included for each of the quantitatively scaled items in the PSRI. This option is *not a midpoint* for these scales but rather an option for respondents who do not have sufficient information to respond. Analyses of collected data using these scales should not treat these responses as part of the ordinal scale.

In most analyses conducted by the U-M Team, the responses of "No Basis for Judgment" were dropped because this response does not conceptually fit on an ordinal scale.

Open-Ended Survey Items

In addition to quantitative survey items and demographic questions, the PSRI also includes one open-ended question for each of the five dimensions of personal and social responsibility (see Table 7). These questions allow respondents to describe particular experiences on campus that help students to develop personal and social responsibility and provide a qualitative counterpoint to the quantitative items.

TABLE 7. PSRI Fall 2007 open-ended survey questions		
Dimension	*Student item*	*Professional item*
Striving for excellence	What experiences at this campus have helped you further develop your work ethic? Please describe 1-2 examples below.	What programs or practices at this institution are especially effective at helping students develop their work ethic? Please describe 1 or 2 examples below.
Cultivating personal and academic integrity	What experiences at this campus have helped you strengthen your academic integrity? Please describe 1-2 examples below.	What programs or practices at this institution are especially effective at helping students strengthen their academic integrity? Please describe 1 or 2 examples below.
Contributing to a larger community	What experiences at this campus have helped you strengthen your sense of responsibility toward being involved in the community and contributing to the greater good? Please describe 1-2 examples below.	What programs or practices at this campus are especially effective at helping students strengthen their sense of responsibility toward being involved in the community and contributing to the greater good? Please describe 1 or 2 examples below.
Taking seriously the perspectives of others	What experiences at this campus have helped you further develop your ability to appreciate (but not necessarily agree with) the perspectives of others? Please describe 1-2 examples below.	What programs or practices at this institution are especially effective at helping students strengthen their ability to appreciate (but not necessarily agree with) the perspectives of others? Please describe 1 or 2 examples below.
Developing competence in ethical and moral reasoning and action	What experiences at this campus have helped you further develop your capacity for ethical and moral reasoning? Please describe 1-2 examples below.	What programs or practices at this institution are especially effective at helping students develop their capacity for ethical and moral reasoning? Please describe 1 or 2 examples below.

Correlation Matrices

Correlation matrices are provided in appendix C for the five dimensions. These were created as a precursor to developing scales for each of the dimensions (see section 4).

SECTION IV. PSYCHOMETRIC CHARACTERISTICS AND SCALE DEVELOPMENT

Reliability

Test designers and administrators can take steps to optimize an instrument's reliability. The PSRI (fall 2007) developers constructed scales that used multiple items to assess the key markers of each of the five dimensions of personal and social responsibility. Additionally, U-M Team members administered a pilot test to evaluate the coherence and reliability of the individual survey items on the PSRI (fall 2007). Furthermore, part of the administration process included changing the order in which survey items were presented to respondents; this variation did not produce any observable difference in item response pattern or correlation.

In any subsequent survey administrations of the PSRI (fall 2007), survey administrators should be proactive in assessing how changing certain processes from year-to-year might impact the instrument's reliability. Considerations include: (a) the timing of the test administration (the time point in the semester or year when the test is administered); (b) any substantive changes in the directions that precede the survey items; (c) the mode of administration (online or paper); and (d) how incentives for survey participation are used.

Validity

Validity refers to the accuracy of an instrument and the degree to which it allows for inferences about the results; in other words, how well an instrument "provides an accurate representation of some abstract concept…any measuring device is valid if it does what it is intended to do" (Carmines and Zeller 1979, 12). There are several types of validity. *Criterion-related* validity—also referred to as *predictive*, *concurrent*, *convergent*, or *discriminant* validity—is how well an instrument can estimate behaviors or outcomes external to the instrument itself. This form of validity is the degree to which the information collected through the instrument predicts or correlates with some external criterion. *Content validity*—or *face validity*—refers to the degree to which the instrument reflects the area of content it purports to represent. An instrument with strong content validity is well grounded in the theoretical and empirical literature and has clearly defined goals. Finally, *construct validity* refers to how well the instrument translates the concepts, constructs, or theories that it intends to test or assess into measurements (Trochim 2000). According to Carmines and Zeller (1979), content and criterion validity have limited usefulness for assessing validity, so construct validity is the preferred approach. In the case of the PSRI, its construct validity suggests how well the survey captures the presence of each of the five PSR dimensions and whether these concepts are sufficiently measured by the instrument.

Assessing the validity of an instrument requires consideration of whether or not the data the instrument produces actually represents the purpose of the research. Construct validation consists of three steps (Carmines and Zeller 1979; Cronbach and Meehl 1955). First, researchers must specify the conceptual basis of the constructs being measured and their interrelationships. In creating the PSRI (fall 2007), the developers carefully and strategically to defined each of the five dimensions, grounded each dimension in student development theory, connecting each dimension with likely influences from the broader organizational context and climate, and clarified how these connect with college outcomes. More information about the

conceptualization of the PSRI can be found in the *Interpreters' Guide for the Personal and Social Responsibility Inventory (PSRI): An Institutional Climate Measure*. The second step in construct validation is to determine how constructs might be operationalized. As discussed in the *Interpreters' Guide*, the PSRI developers referenced other instruments developed by psychologists and higher education researchers. In the third and final step for construct validation, relationships among the hypothesized constructs and their operationalized forms must be tested, often through factor analysis (Kerlinger 1973). During this final step, "the logic of construct validation usually implies that the relationship among multiple indicators designed to represent a given theoretical concept and theoretically relevant external variables should be similar in terms of direction, strength, and consistency" (Carmines and Zeller 1979, 26).

Scale Development

The U-M Team developed scales using the fall 2007 data set from the PSRI. The data set was weighted using the *bias_wgt* variable that adjusted the sample according to gender, race, and class year. All attitudinal and behavioral variables were reverse coded so that higher numbers signified more agreement or a greater frequency. Exploratory factor analyses were used to consider clusters of items that hung together empirically and conceptually both across and within each of the dimensions. The scales described below were determined using factor analysis with principal component varimax rotation.

The scales represent the major conceptual constructs in the PSRI— the perception of students' growth on each of the dimensions as a consequence of their time on campus, and the general measures of campus climate for each of the five dimensions. Although strictly empirical scales were considered, the following factors were developed based on a conceptual understanding of the survey items.

The reliability values for each of the scales ranges from $\alpha = 0.74 - 0.93$. Once these alpha values were determined, scales were computed by calculating the sum of the products from each of the standardized variables with their corresponding component score coefficient. Included below are the details which specify the conceptual construct captured by the factors, the survey items utilized for each factor, the alpha values, and the mean and standard deviation of the computed factors. Finally, following the description of each scale, table 8 provides correlations denoting the nature of relationship between the scales.

Factors Across the Five Dimensions

Variable Name: SGROWN
Conceptual Logic = Students' perceptions of their growth on the dimensions
$\alpha = 0.860$, eight items
mean = 0.111
sd = 0.945

Factor Variables and Corresponding Survey Items
- SPERS11—I have developed an increased ability to learn from diverse perspectives during the time I have been in college

22

- SEXCE08—My experiences at this campus have helped me to further develop my work ethic
- SACIN15—I believe that I have gained a better understanding about academic integrity since I have been in college
- SACIN16—I believe that I have gained an increased sense of personal integrity since I have been in college
- SETHC23—I have expanded my capacity for ethical and moral reasoning since I have been in college
- SCOMM07—This campus has helped me expand my own awareness of the importance of being involved in the community and contributing to the greater good
- SCOMM16—My commitment to change society for the better has grown during my time on campus
- EXCE07—Students have a stronger work ethic at the end of their studies here

Variable Name: PGROWN
Conceptual Logic = Campus professionals' perceptions of students' growth on the dimensions
α = 0.883, 7 items
mean = 0.069
sd = 1.005

Factor Variables and Corresponding Survey Items
- PETHC23—Students usually have an increased capacity for ethical and moral reasoning at graduation than they had at the beginning of college
- PCOMM07—Students usually have a stronger awareness of the importance of being involved in the community and contributing to the greater good at the end of their time on campus than they had at the beginning of college
- PACIN16—Students usually have a better understanding of personal integrity when they graduate than they demonstrated at the beginning of college
- P PPERS12—Students here develop an increased ability to gather and thoughtfully use evidence to support their own analysis during their studies on campus
- PPERS13—During the time students are here, they develop an increased ability to understand evidence, analysis, and the perspectives of others even when they disagree
- PPERS11—Students usually have an increased capacity to learn from diverse perspectives at graduation than they had at the beginning of college
- PACIN15—Students usually have a better understanding of academic integrity when they graduate than they demonstrated at the beginning of college

Factors Within Dimensions
Variable Name: EXCECLIM
Conceptual Logic = Overall, the striving for excellence campus climate
α = 0.943, nine items
mean = 0.091
sd = 0.790

Factor Variables and Corresponding Survey Items

- EXCE04—This campus makes clear connections between having a strong work ethic and success in college
- EXCE03—The characteristics of a strong work ethic are frequently emphasized and discussed in this campus community
- EXCE01—Helping students develop a strong work ethic is a major focus of this campus
- SEXCE15—Senior campus administrators on this campus help motivate students to become more self-disciplined, accountable, and responsible in their work
- SEXCE16—Student affairs staff at this campus help motivate students to become more self-disciplined, accountable, and responsible in their work
- SEXCE06—The campus community has high expectations for students in terms of their personal work ethic in non-academic areas
- SEXCE14—Faculty at this campus help motivate students to become more self-disciplined, accountable, and responsible in their work
- SEXCE17—Students at this campus motivate one another to become more self-disciplined, accountable, and responsible in their work
- EXCE05—This campus helps students connect having a strong work ethic with success after college

Variable Name: ACINCLIM
Conceptual Logic = Overall, the academic integrity campus climate
α = 0.741, four items
mean = -0.022
sd = 0.997

Factor Variables and Corresponding Survey Items
- ACIN01—Helping students develop a strong sense of personal and academic integrity is a major focus of this institution
- ACIN03—Having personal and academic integrity (honesty, fairness, respect for others, and having a personal honor code) is emphasized by the campus community
- ACIN06—Students on this campus conduct themselves with respect for others
- ACIN11—Students know they are responsible for personal and academic integrity

Variable Name: COMMCLIM
Conceptual Logic = Overall, the contributing to community campus climate
α = 0.883, 5 items
mean = 0.021
sd = 0.677

Factor Variables and Corresponding Survey Items
- COMM03—Contributing to a larger community is a responsibility that this campus values and promotes
- COMM01—The importance of contributing to a larger community is a major focus of this campus
- COMM04—This campus actively promotes awareness of U.S. social, political, and economic issues

- COMM05—This campus actively promotes awareness of global social, political, and economic issues
- SCOMM14—This campus provides opportunities to participate in actions to make society better

Variable Name: PERSCLIM
Conceptual Logic = Overall, the perspective-taking campus climate
α = 0.866, five items
mean = 0.027
sd = 0.685

Factor Variables and Corresponding Survey Items
- PERS01—Helping students recognize the importance of taking seriously the perspectives of others is a major focus of this campus
- PERS03—This campus helps students understand the connection between appreciating various opinions and perspectives and being a well-informed citizen
- PERS05—Faculty teach about the importance of considering diverse intellectual viewpoints
- PERS06—Faculty help students think through new and challenging ideas or perspectives
- PERS08—This campus has high expectations for students in terms of their ability to take seriously the perspectives of others, especially those with whom they disagree

Variable Name: ETHCCLIM
Conceptual Logic = Overall, the moral and ethical reasoning campus climate
α = 0.931, nine items
mean = 0.057
sd = 0.800

Factor Variables and Corresponding Survey Items
- ETHC03—This campus helps students develop their ethical and moral reasoning capacities, including the ability to express and act upon personal values responsibly
- ETHC12—Students are encouraged to take action to promote a more moral and ethical world
- ETHC11—This campus provides opportunities for students to develop their ethical and moral reasoning in their personal life
- ETHC04—The importance of developing a personal sense of ethical and moral reasoning is frequently communicated to students
- ETHC01—Helping students develop their own ethical and moral reasoning is a major focus of this campus
- ETHC10—This campus provides opportunities for students to develop their ethical and moral reasoning with academic work
- ETHC05—Students feel they can go to senior campus administrators to discuss questions or concerns they have about their own ethical and moral thinking and the challenges they face

- ETHC07—Students feel they can go to student affairs staff members to discuss questions or concerns they have about their own ethical and moral thinking and the challenges they face
- ETHC06—Students feel they can go to faculty members to discuss questions or concerns they have about their own ethical and moral thinking and the challenges they face

Table 8. Correlation matrix for PSRI (Fall, 2007) Climate and Perceptions of Growth Scales

	Professionals' perceptions of students' growth on the dimensions	Overall, the striving for excellence campus climate	Overall, the academic integrity campus climate	Overall, the contributing to community campus climate	Overall, the perception of the degree to which the campus presents a climate that embraces diverse perspectives	Overall, the consensus on the extent to which the campus provides a climate that supports moral and ethical reasoning
Students perceptions of their growth on the dimensions		.658 ***	-.544 ***	.529 ***	.515 ***	.636 ***
Professionals' perceptions of students' growth on the dimensions	1		-.634 ***		.632 ***	.699 ***
Overall, the striving for excellence campus climate		1	-.565 ***	.491 ***	.541 ***	.710 ***
Overall, the academic integrity campus climate			1	-.463 ***	-.499 ***	-.569 ***
Overall, the contributing to community campus climate				1	.486 ***	.572 ***
Overall, the perception of the degree to which the campus presents a climate that embraces diverse perspectives					1	.616 ***

*** $p<.001$

SECTION V. RECOMMENDATIONS FOR FUTURE ADMINISTRATION

Improving Response Rates

Researchers or campus administrators using surveys to collect data on students are continually confronted with the challenge of increasing response rates. Like all surveys of campus climate, the PSRI is useful to the extent that institutions can assume that students (as well as professionals) who complete the survey are similar to those who do not complete it. Whether surveying the entire campus or a random sample, fewer responses increases the chances that the survey respondents will differ from those who do not respond in both identifiable and unidentifiable ways. These differences introduce non-response error into the survey results, which prevents the sample from effectively serving as a representation of the entire campus population.

Based on the fall 2007 administration of the PSRI, the U-M Team identified several steps that institutions can take to increase student response rates when using the PSRI (see Holsapple, Barnhardt, Antonaros, and Dey 2008, for a more in-depth discussion). In the 2007 administration, institutions made their own decisions about several components of the administration, including incentives, timing, and sponsorship, that they determined would maximize both the response rate and their resources. These individual variations in administrative practice were useful in adapting to distinct campus cultures and in systematically evaluating the effectiveness of different approaches.

Sponsorship

A sponsor was defined as the person or group from whom the initial survey recruitment e-mail message was sent. In the 2007 administration, sponsorship from deans and department chairs predicted the highest response rates and sponsorship from presidents and provosts also predicted higher response rates.

Personalization

Some institutions personalized their recruitment e-mails (e.g., Dear Jane Doe) while others used generic greetings (e.g., Dear State University Student). In the 2007 administration, a generic greeting predicted a higher response rate than a personalized greeting.

Cut-Off

In the 2007 administration, student response rates were higher when there was no survey cut-off date included in the recruitment e-mail.

Incentives

Some campuses offered incentives for students to complete the survey, ranging from small inducements (e.g., a coupon for a free cup of coffee or a keychain) to entry into a lottery for a larger prize (e.g., a bookstore gift certificate or MP3 player), or a combination of both. Other institutions used no incentive at all. In the 2007 administration, offering entry into a lottery for a larger prize was the most effective method for generating a higher response rate.

Timing

Institutions had the option to begin recruiting for the survey on any day of the week. Although Monday was the most common day of the week to begin recruitment—coinciding with the beginning of the work week of campus professionals—institutions that began recruiting on a Wednesday had the highest response rates, followed by Monday and Thursday. Those that began recruiting on Tuesday yielded the lowest response rates.

While these factors had notable effects on response rates for some campuses, those effects were not uniform across all twenty-three institutions. Campus leaders should take into account their own campus contexts and discuss administration decisions with students, in particular, to gauge the potential impact on response rates.

Response Weighting

After data collection is complete, survey administrators and analysts can calculate weights for individual respondents to partially account for non-response error in survey data, particularly in univariate analyses (Dey 1997). Common statistical programs can incorporate those weights into any analysis of the survey data. Analysts should be mindful, however, that weighting only allows the correction of nonresponse bias on measured variables. Even after weighting data, nonresponse bias based on non-measured variables may still exist.

References

Alwin, D., and J. Krosnick. 1991. The reliability of survey attitude measurement: The influence of question and respondent attributes. *Sociological Methods & Research* 20 (1): 139—181.

Berthelot, M., and M. Latouche. 1993. Improving the efficiency of data collection: Generic Respondent follow-up strategy for economic surveys. *Journal of Business and Economic Statistics* 11 (4), 417—424.

Blau, P. M. 1964. *Exchange and power in social life*. New York: Wiley.

Carmines, E., and R. Zeller. 1979. *Reliability and validity assessment.* Newbury Park, CA: Sage Publications.

Cronbach, L. 1947. Test "reliability:" Its meaning and determination. *Psychometrika* 12(1): 1—16.

Cronbach, L., and P. Meehl. 1955. Construct validity in psychological test. *Psychological Bulletin* 52: 281-302.

Dey, E. L. 1997. Working with low survey response rates: The efficacy of weighting adjustments. *Research in Higher Education* 38 (2): 215—227.

Dillman, D. A. 1978. *Mail and telephone surveys: The Total Design method*. New York: Wiley-Interscience.

———. 2000. *Mail and Internet surveys, the Tailored Design Method*. New York: Wiley.

Fox, R. J., M. R. Crask, and J. Kim. 1988. Mail survey response rate—A meta-analysis of selected techniques for inducing response. *Public Opinion Quarterly* 52 (4): 467—491.

Holsapple, M. A., C. L. Barnhardt, M. E. Antonaros, and E. L. Dey. 2008. Response rates in higher education research: Why does it feel like pulling teeth? Paper presented at the 33rd annual convention of the Association for the Study of Higher Education: Jacksonville, FL.

Kerlinger, F. N. 1973. Foundations of behavioral research (2nd ed.). New York: Holt, Rinehart and Winston.

Porter, S. R., and M. E. Whitcomb. 2005b. Non-response in student surveys: The role of demographics, engagement and personality. *Research in Higher Education* 46 (2): 127—152.

Thompson, B., and L. Daniel. 1996. Factor analytic evidence for the construct validity of scores: A historical overview and some guidelines. *Educational and Psychological Measurement* 56(2): 197—208.

Trochim, W. 2000. *The research methods knowledge base* (2nd edition). Atomic Dog Publishing, Cincinnati, OH.

APPENDIX A: Catalog of Research Conducted with Fall 2007 PSRI Data

The following list represents the research that emerged from members of the U-M Team to date using data from the fall 2007 administration of the PSRI.

Publications

Dey, E. L., M. C. Ott, C. L. Barnhardt, M. Antonaros, and M. A. Holsapple. 2010. *Engaging diverse viewpoints: What is the campus climate for perspective-taking?* Washington, DC: Association of American Colleges and Universities.

Dey, E. L., M. Antonaros, M.C. Ott, C. L. Barnhardt, and M. A. Holsapple. 2009. *Developing a moral compass: What is the campus climate for ethics and academic integrity?* Washington, DC: American Association of Colleges and Universities.

Dey, E.L., C. Barnhardt, M. Antonaros, M.C. Ott, and M.A. Holsapple. 2009. *Civic responsibility: What is the campus climate for learning?* Washington, DC: American Association of Colleges and Universities.

Dey, E. L., and Associates. 2008. "Should Colleges Focus More on Personal and Social Responsibility? Initial Findings from Campus Surveys Conducted for the Association of American Colleges and Universities as Part of Its Initiative, Core Commitments: Educating Students for Personal and Social Responsibility." Washington, DC: American Association of Colleges and Universities.

The above publications are available at www.aacu.org.

Peer Reviewed Papers and Presentations

Barnhardt, C. 2010. "Fraternity and sorority members' personal and social responsibility." Paper presented at the annual meeting of the American Educational Research Association. Denver, CO, April 30–May 4, 2010.

> There is wide agreement among campus administrators and inter/national fraternity and sorority leaders alike that the means for improving fraternity/sorority members' campus conduct is contingent upon the extent to which these students embrace a climate that nurtures personal and social responsibility. Associations and governing bodies have made numerous calls for "Values Congruence" educational initiatives, yet virtually no evidence exists that describes fraternity and sorority members' current sense of personal and social responsibility. Consequently, this study uses a large national survey data to quantitatively explore fraternity and sorority members' views of themselves and their peers to describe and define the climate of personal and social responsibility.
> *Corresponding author: Cassie Barnhardt,* CassBarn@umich.edu

Barnhardt, C. L., M. C. Ott, M. Antonaros, M. A. Holsapple, and E. L. Dey. 2009. "Practice makes perfect? Spirituality, religiosity and students' commitment and capacity for social

responsibility." Paper presented at the annual meeting of the Association for the Study of Higher Education: Vancouver, BC, November 7, 2009.

There is a dearth of research on how spirituality and religiosity influence the development of personal and social responsibility for undergraduate students. In this study, researchers use data from the *Personal and Social Responsibility Institutional Inventory* and ordinary least squares (OLS) block regression analyses to consider myriad spirituality and religiosity factors that influence students' desire to change society for the better. Findings demonstrate that individual and institutional characteristics appear to matter less than students' experiences and perceptions of their campuses when it comes to fostering skills and commitment around personal and social responsibility. This is consistent with the general body of research on college impact, of course, and does not mean that individual and institutional characteristics are not important, especially since they help structure student perceptions. Belonging to a religious tradition has on its own very little to do with developing students capacity for social responsibility, but the degree of faith practice can be both an asset and a deficit in mediating the influence of the college experience. Relative to religiosity, spirituality seems to have a more profound influence on shaping student skills and commitments for contributing to the greater good.
Corresponding author: Cassie Barnhardt, CassBarn@umich.edu

Holsapple, M. A., C. L. Barnhardt., M. Antonaros, and E.L. Dey. 2008. "Response rates in higher education: Why does it feel like pulling teeth?" Paper presented at the annual meeting of the Association for the Study of Higher Education. Jacksonville, FL, November 7–10, 2008.

Survey research on college university campuses is a common activity used to gather information and understand students' experiences. As a result, campus administrators need to fully understand the consequences of their survey administration approaches since these can influence whether students will ultimately respond to the surveys. Therefore, in this study researchers use data from the *Personal and Social Responsibility Institutional Inventory* and hierarchical regression analyses to consider factors that influence the probability of undergraduate students responding to electronic surveys. This study is unique in the sense that it explores the usefulness of survey administration practices employed at twenty-two different campuses, and how these factors tend to produce representative survey samples according to respondents' gender, race, and class-year.
Corresponding author: Matthew Holsapple, Mapple@umich.edu

Dey, E. L., M. Antonaros, C. L. Barnhardt, M. A. Holsapple, K. Moronski, and V. Vergoth. 2008. "Higher education working together to advance students' personal and social responsibility." Symposium presented at the annual meeting of the Association for the Study of Higher Education. Jacksonville, FL, November 7–10, 2008.

Cooperation among higher education institutions is becoming an increasingly common tool in pursuing common educational goals. This symposium was designed to provide a forum for exploring one approach to institutional improvement that involves a national membership organization, interested campuses, their students and faculty, as well as a research unit generating data for use in informing institutional plans. Specifically, the presenters provided insights and cautionary tales that illuminated the complex terrain of fulfilling multiple goals

simultaneously: (1) building and sustaining campus level momentum for pursuing a common vision of liberal education; (2) developing and administering a survey instrument that captures the spirit of five core educational ideals while being sensitive to the unique institutional identities and missions in the extremely differentiated field of higher education; and (3) interpreting and disseminating empirical information locally and nationally in a manner that retains objectivity, but also inspires collective action.

Corresponding author: Mary Antonaros: MaryAnto@umich.edu

Vergoth, V., M. Antonaros, C. L. Barnhardt, K. Moronski, M. A. Holsapple, C. Jensen, and E. L. Dey. 2008. "'I didn't eat any corn': Potential respondents say the darndest things." Conference presentation at the Division of Student Affairs Research Symposium: University of Michigan, Ann Arbor, MI, May 8–9, 2008.

New methodologies for administering Web-based surveys have generated new challenges, and many result in surprising responses from potential respondents. The *Personal and Social Responsibility Institutional Inventory* received several interesting responses to completing the survey. The major categories of responses are detailed in this presentation. Researchers offer insights and strategies for encouraging survey participation.

Corresponding author: Mary Antonaros, MaryAnto@umich.edu

APPENDIX B: Sample Correspondence to Participants

Sample Invitation Letter—Students

(LETTER A)

Dear [FirstName]:

Recently, Central University leaders (First Last, President; First Last, Provost; and First Last, VP for Student Affairs) contacted you about an opportunity to participate in a new project on our campus, the Association of American Colleges & Universities Core Commitments project (http://www.aacu.org/core_commitments/index.cfm).

I invite and encourage you to respond to the Personal and Social Responsibility Inventory survey promptly. Your participation in the survey will take no more than 25 minutes, is completely voluntary, and your responses will be confidential.

The survey administration will be open from November 2nd - November 16th. Your efforts and views are important for helping our campus improve the overall experience for each and every member of this community.

http://www.surveymk.com/s.aspx

For the time and effort that you spend responding to the survey, you will receive a Central University Integrity bracelet. Additionally, survey respondents will be entered into a random drawing to receive prizes such as:

- King Café gift certificates
- Two tickets to a CU Ice Hockey game and a Zamboni ride
- Two tickets to a CU Men's Basketball game and two passes to the hospitality tent for free catered food and delicious desserts
- CU Bookstore gift certificates - including the possibility of winning the grand prize, a $350 CU Bookstore gift certificate to purchase textbooks for Spring Semester.

If you have any questions, feel free to reply contact the AAC&U research team staff at CoreComm@umich.edu

Thank you,
First Last
Director of Institutional Research
Central University

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list. http://www.surveymk.com/optout.aspx

(LETTER B)

Dear [Student First Name],

Our campus has earned the opportunity to participate in an exciting new national project called Core Commitments: Educating Students for Personal and Social Responsibility.

This project is designed to support students, administrators, and faculty towards engaging in core questions about their ethical responsibilities to self and others, and about their responsibilities as citizens in a diverse democracy.

An important step in the Core Commitments project is to take stock of the extent to which our campus community encourages students to: strive for excellence, cultivate personal and academic integrity, contribute to a larger community, take the perspectives of others seriously, and develop competence in ethical and moral reasoning. A team of researchers at the University of Michigan working with AAC&U has agreed to help us with this task, and is partnering with First Last, Student Government President, First Last, Associate Dean of Students, and Dr. First Last, Associate Dean of the College of Arts and Sciences to survey our community.

If you would like to learn more about this effort and contribute by participating in the survey, you may do so by clicking on the following link:
http://www.surveymk.com/s.aspx

We invite and encourage you to respond to this message by completing the Core Commitments survey promptly. In appreciation for your taking the time to complete this survey, you will be automatically enrolled in a $250 Shopping Mall gift card raffle. The winner of the raffle will be notified by October 30, 2007.

Your efforts and views are important for helping our campus improve the overall experience for each and every member of this community.

Sincerely,

First Last
Student Government President
First Last
Associate Dean of Students

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list. http://www.surveymk.com/optout.aspx

Sample Invitation Letter —Professionals
(LETTER A)

Dear [FirstName]

Recently, Central University leaders (First Last, President; First Last, Provost; and First Last, VP for Student Affairs) contacted you about an opportunity to participate in a new project on our campus, the Association of American Colleges & Universities Core Commitments project (http://www.aacu.org/core_commitments/index.cfm).

I invite and encourage you to respond to the Personal and Social Responsibility Inventory survey promptly. Your participation in the survey will take no more than 25 minutes, is completely voluntary, and your responses will be confidential.

The survey administration will be open from October 16th - October 31st.Your efforts and views are important for helping our campus improve the overall experience for each and every member of this community. http://www.surveymk.com/s.aspx

If you have any questions, feel free to reply contact the AAC&U research team staff at CoreComm@umich.edu

Thank you,

First Last
Director of Institutional Research
Central University

*Please Note: This message was electronically sent by the Core Commitments Research Team on behalf of [Director of Institutional Research]

To remove yourself from this list, please click the following link:
http://www.surveymk.com/optout.aspx

(LETTER B)
Dear Colleagues:

As you know Central University is one of twenty-three institutions selected to be part of the Association of American College and Universities (AAC&U) National Leadership Consortium for Core Commitments: Educating Students for Personal and Social Responsibility. This national initiative seeks to embed personal and social responsibility objectives pervasively across the institution as key educational outcomes for students and measure the impact of campus efforts to foster such learning. As part of the initiative, each of the 23 campuses participating in Core Commitments Leadership Consortium will administer AAC&U's Personal and Social Responsibility Inventory to students, faculty, student affairs administrators, and academic administrators. The results of this inventory will serve as a catalyst for dialogues across the university.

As part of our University's participation in this national leadership consortium, each of us needs to complete this Personal and Social Responsibility Inventory. Our participation and recognition in this project begins with our ability to demonstrate a high response rate to this Inventory. Each constituent (Faculty, Academic Administrators, and Student Affairs) will receive their designated component at your CU email address. Please be certain to complete the Inventory by the deadline of October 5th. I also ask that you encourage students; however you can, to complete the student version of the Inventory which is being sent to them.

If you would like to learn more about this effort and contribute by participating in the survey, you may do so by clicking on the following link:
http://www.surveymk.com/s.aspx.

Our participation in this national leadership consortium is both an honor and an opportunity for Central University. Educating our students for personal and social responsibility is consistent with the University's mission and integral to the education we provide for our students. I thank you for your timely response to this Inventory.

Sincerely,
First Last, Ph.D.
President
Central University

Please note: If you do not wish to receive further emails about this survey, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymk.com/optout.aspx

Sample Follow Up Letters to Invitations
Contact #2: Follow up Reminder (5-7 days after Contact #1)
From CoreComm@umich.edu

Dear [First Name]:
I am writing to remind you that there is still time to participate in the Core Commitments project on your campus. The survey will be open for a little over a week, and if you decide to participate, you can access the survey via:

SURVEY LINK
Please let me know if you have any questions by replying to this message or email me at:
corecomm@umich.edu

Thank you,
[Research Assistant's name]
University of Michigan
Core Commitments Research Team
REMOVE LINK

Attach a forwarded version of Contact #1
Final Contact: Second Reminder (5-7 days after Contact #2)
From CoreComm@umich.edu

Dear [FirstName]:

If you are interested, there is still time to participate in the Core Commitments project on your campus. The survey administration will end on Friday, October 5th at 11:59pm. If
you decide to participate, you can access the survey via: SURVEY LINK

Please let me know if you have any questions by replying to this message or email me at:
corecomm@umich.edu

Thank you,
[Research Assistant's name]
University of Michigan
Core Commitments Research Team
REMOVE LINK

Attach a forwarded version of Contact #2 (with Contact #1 attached)